IN THE CLAIMS

Please amend claims 1-24, as follows:

1. (Original) A method for carrying out exercise type detection, in which method

– the accelerations caused by a person's physical exercise are measured by an exercise type detector (10) in at least one dimension

– at least two different characteristics describing the accelerations measured are calculated from the measurement results,

characterized in that the detection of the type of exercise is carried out by comparing the characteristics calculated from the measurement results to the values of a table saved in the memory of the exercise type detector (10), describing the types of exercise, and by selecting the exercise type, the value of which in the table is closest to the characteristics calculated from the results of the measurement as the exercise type in question.

2. (Original) The method according to Claim 1, characterized in that the accelerations are measured in three dimensions.

3. (Original) The method according to Claim 2, characterized in that the following acceleration parameters/measurement results are used in the detection of the type of exercise. Max x, Max y, Max z, Min x, Min y and Min z.

4. (Original) The method according to Claim 3, characterized in that in addition, the following characteristics calculated from the acceleration measurement results are used in the detection of the type of exercise: Avg x, Avg y, Avg z, Pos x, Pos y, Pos z, Neg x, Neg y and Neg z.

5. (Original) The method according to Claim 4, characterized in that in the detection of the type of exercise, the membership degree function of all the above

mentioned parameters is calculated specifically for each exercise type to be examined.

6. (Original) The method according to Claim 5, characterized in that a triangular function is used as the membership degree function.

7. (Currently Amended) The method according to Claim 5~~—or—6~~, characterized in that in the detection of the type of exercise, the type of exercise, for which the weighted sum of the summed membership degree functions gives the highest numerical value, is detected.

8. (Original) The method according to Claim 2, characterized in that in addition to the acceleration measurement, an altitude measurement is used in the exercise type detection to indicate vertical movement of the person.

9. (Original) The method according to Claim 8, characterized in that the altitude measurement is based on a change of atmospheric pressure, which is measured either by a sensor in the exercise type detector (10) or other device carried along by the person, from which the altitude information is transferred to the exercise type detector.

10. (Original) An exercise type detector (10), which comprises

– means (11) for measuring acceleration in at least one dimension

– means for calculating (12) at least two different characteristics from the measured acceleration information, and

– means (12) for saving the exercise type detection,

characterized in that the exercise type detector also comprises a table arranged by types of exercise, to the values of which the characteristics calculated from the acceleration measurement have been arranged to be compared in order to perform the detection of the type of exercise.

11. (Original) The exercise type detector (10) according to Claim 10,

characterized in that the means (11) for measuring acceleration comprise means for measuring acceleration in three dimensions perpendicular to each other.

12. (Original) The exercise type detector (10) according to Claim 11, characterized in that the table used in the detection of the type of exercise comprises values specific to the type of exercise, concerning the following parameters describing accelerations: Max x, Max y, Max z, Min x, Min y, Min z, Avg x, Avg y, Avg z, Pos x, Pos y, Pos z, Neg x, Neg y and Neg z.

13. (Original) The exercise type detector (10) according to Claim 12, characterized in that the detection of the type of exercise has been arranged to be performed by means of membership degree functions calculated for the parameters.

14. (Original) The exercise type detector (10) according to Claim 13, characterized in that a triangular function has been arranged to be used as the membership degree function.

15. (Currently Amended) The exercise type detector (10) according to Claim 13 ~~or 14~~, characterized in that in the detection of the type of exercise, the one for which the weighted sum of the summed membership degree functions gives the highest numerical value has been arranged to be the type of exercise detected.

16. (Original) The exercise type detector (10) according to Claim 10, characterized in that it also comprises an altimeter for indicating the movement of the person taking place in the vertical direction.

17. (Original) The exercise type detector (10) according to Claim 16, characterized in that the altimeter is a meter based on a change of the atmospheric pressure.

18. (Original) The exercise type detector (10) according to Claim 17,

characterized in that the altimeter based on atmospheric pressure is located either in the exercise type detector (10) or a separate device carried along by the person, in which case the altitude information has been arranged to be transferred electrically to the exercise type detector (10).

19. (Original) A computer program product to be used in the exercise type detector (10) for performing the exercise type detection by using acceleration measurements, characterized in that the computer program product comprises

– computer readable code means for calculating at least two different characteristics from the accelerations measured

– computer readable code means for comparing the calculated characteristics to the values of the table saved in the exercise type detector (10), and

– computer readable code means for selecting the type of exercise, the value of which in said table is closest to the characteristics calculated from the results of the measurement.

20. (Original) The computer program product according to Claim 19, characterized in that it comprises computer readable code means for calculating the following acceleration parameters/measurement results: Max x, Max y, Max z, Min x, Min y, Min z, Avg x, Avg y, Avg z, Pos x, Pos y, Pos z, Neg x, Neg y and Neg z.

21. (Original) The computer readable code product according to Claim 20, characterized in that it comprises computer program means for defining a membership degree function for said parameters by type of exercise.

22. (Original) The computer program product according to Claim 21, characterized in that it comprises computer readable code means for calculating a membership function by using a triangular function.

23. (Currently Amended) The computer program product according to Claim 21~~ or 22~~, characterized in that in it comprises computer readable code means for

detecting a type of exercise as the type of exercise for which the sum of the weighted, summed membership degree functions gives the highest numerical value.

24. (Original) The computer program product according to Claim 19, characterized in that it also comprises computer readable code means for utilizing the result of the altitude measurement in addition to the acceleration measurements in the exercise type detection.

25. (New) The method according to Claim 6, characterized in that in the detection of the type of exercise, the type of exercise, for which the weighted sum of the summed membership degree functions gives the highest numerical value, is detected.

26. (New) The exercise type detector (10) according to Claim 14, characterized in that in the detection of the type of exercise, the one for which the weighted sum of the summed membership degree functions gives the highest numerical value has been arranged to be the type of exercise detected.

27. (New) The computer program product according to Claim 22, characterized in that in it comprises computer readable code means for detecting a type of exercise as the type of exercise for which the sum of the weighted, summed membership degree functions gives the highest numerical value.